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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,704	03/15/2004	Jozef Babiarz	57983.000171	8973

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EXAMINER	
JAIN, RAJ K	

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/799,704	BABIARZ ET AL.	
	Examiner	Art Unit	
	RAJ K. JAIN	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20,22 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16,18-20,22 and 23* is/are rejected.

7)☒ Claim(s) *17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

General Remarks

Pursuant to the agreement reached between the Applicant and the undersigned in the telephonic interview held on March 7, 2008, the date of cited prior art Kelly T. (An ECN Probe Based Connection Acceptance Control) is accepted to be July 2001, which therefore constitutes proper prior art for present rejection purposes.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-16, 18-20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly T. (An ECN Probe Based Connection Acceptance Control) paper in view of Jacobs et al (US 2003/0107994 A1).

Regarding claim(s) 1 and 23, Kelly discloses a method for end-to-end admission control of real-time packet flows in a network having a plurality of network elements (Fig. 2, Section 2), the method comprising:

transmitting at least one probe packet from a first network element to a second network element via a network path (section 4, host A sends a probe packet to host B); determining, at at least one intermediate network element on the network path (section 1 col 2 last Para, routers within the network of end-to end systems act as intermediate

network elements on the network path), at least one flow rate associated with a plurality of packets (section 4 col 2 Para 2, target rate R is the flow rate of host A).

Kelly fails to disclose encoding at least two predetermined bits in the at least one probe packet based at least in part upon a level of congestion associated with the at least one flow rate and controlling an admission of additional packets into the network.

Jacobs discloses encoding at least two predetermined bits (Fig. 5a; Para 26, bits 6 and 7 are encoded to indicate congestion along a given path or link in a path) in the at least one probe packet based at least in part upon a level of congestion associated with the at least one flow rate and controlling an admission of additional packets into the network (paras 4-7 and 24; a congestion level (respective threshold levels) associated with a given flow along a path is controlled by appropriate bits which are marked or encoded to indicate that congestion has occurred along a particular link in the path and thereby reducing (controlling) the flow for that path).

Network congestion control allows for reduction of packet loss due to packet overflow and therefore possible retransmission of lost packets and inturn decrease in network bandwidth efficiency.

Thus it would have been obvious at the time the invention was made to incorporate the teachings of Jacobs within Kelly so as to improve and enhance overall network bandwidth efficiency and performance by reducing packet loss and retransmission by maintaining proper congestion levels within a communications network.

Regarding claim(s) 2 , Kelly discloses denying the admission of the additional packets into the network if the at least two predetermined bits in the at least one probe packet encoded (Again Kelly fails to disclose two predetermined bits being encoded, Jacobs discloses two predetermined bits being encoded and reasons for combining same as for base claim 1).

Regarding claim(s) 3, Kelly discloses network congestion or link congestion from one host to another host, either from Host A to Host B or vice versa (Section 4 Para 2 lines 12-14, Kelly fails to disclose two predetermined bits being encoded, Jacobs discloses two predetermined bits being encoded and reasons for combining same as for base claim 1) .

Regarding claim(s) 4, Kelly discloses where the first network element echoes information associated with the at least one second predetermined bit in the at least one second probe packet in a transmission to the network (Again as in claim 3 Host A will echo back see Section 4 Para 2).

Regarding claim(s) 5, Kelly discloses the admission of the additional packets is based at least in part on priorities or importance of the plurality of packets and the additional packets (col 7 Para 2).

Regarding claim(s) 6, Jacobs discloses wherein the admission of the additional packets into the network is controlled by an entity that controls the network (Fig. 2, router serves to control admission of packets into the network and therefore controls the network).

Regarding claim(s) 7, Kelly discloses information associated with the at least two predetermined bits in the at least one probe packet is communicated to at least one of the first network element and the second network element (Fig. 2, shows distributed network elements with intermediate elements in-between, Kelly fails to disclose two predetermined bits being encoded, Jacobs discloses two predetermined bits being encoded and reasons for combining same as for base claim 1).

Regarding claim(s) 8, Kelly discloses where the at least one intermediate network element is part of a bandwidth-limited path in the network (Fig. 2, intermediate node has bandwidth of 30Mbps as opposed to source and sink nodes with 1000Mbps).

Regarding claim(s) 9-11, Kelly discloses where the plurality of packets comprise real-time packets, IP packets and voice over IP packets traversing a network (abstract, section 2).

Regarding claim(s) 12 and 13, Jacobs discloses video packet and/or multimedia transmission of packets including audio/visual packets (paras 2, 22 and 28), reasons for combining same as for claim 1.

Regarding claim(s) 14, Kelly discloses where the at least one predetermined bit is part of a Differentiated Services field in an IP header of the at least one probe packet (col 7 Para 2, Kelly fails to disclose two predetermined bits being encoded, Jacobs discloses two predetermined bits being encoded and reasons for combining same as for base claim 1).

Regarding claim(s) 15 & 16, Kelly discloses the predetermined rate is based on a network bandwidth allocated for the plurality of packets (Col 6 Para 1, the rate is dependent on network congestion and therefore inturn to network bandwidth).

Regarding claim(s) 18, Kelly discloses encoding the at least one predetermined bit in the at least one probe packet based at least in part on the at least one flow rate and stopping the flow rate (Section 4 Para 2; Kelly fails to disclose two predetermined bits being encoded, Jacobs discloses two predetermined bits being encoded and reasons for combining same as for base claim 1).

Regarding claim(s) 19 & 20, Kelly discloses lowering a transmission rate between the first network element and the second network element or between any two network endpoints (Section 6.3, col 12 paras 2 & 3, varying traffic loads levels are set within the TCP connections and traffic is delayed as appropriate; Kelly fails to disclose two predetermined bits being encoded and reducing the flow rate based on two encoded predetermined bits, Jacobs discloses two predetermined bits being and associated controlling of the flow rate as appropriate, reasons for combining same as for base claim 1).

Regarding claim(s) 22, Kelly discloses simulations being performed (section 5 & 6) which incorporate computer algorithms to be executed by specific elements (routers, switches, computer processors etc) within a system.

Allowable Subject Matter

Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-20, 22 and 23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAJ K. JAIN whose telephone number is (571)272-3145. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Raj K. Jain/
Primary Examiner, Art Unit 2616
April 8, 2008